

## PROJECT DESCRIPTION

## GENERAL

THIS PROJECT INVOLVES THE MODIFICATION OF THE EXISTING TRAFFIC CONTROL SIGNAL WITH STREET LIGHTING AND INTERCONNECT AT THE INTERSECTION OF MD 118 (GERMANTOWN ROAD) AND GOLDENROD LANE/SENECA MEADOWS PARKWAY IN MONTGOMERY COUNTY, MARYLAND. MODIFICATIONS INCLUDE THE INSTALLATION OF AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTONS FOR THE NORTH LEG OF MD 118, THE GOLDENROD LANE APPROACH, AND THE SENECA MEADOWS PARKWAY APPROACH. MD 118 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

## INTERSECTION OPERATION

THE INTERSECTION WILL CONTINUE TO OPERATE IN A NEMA SIX-PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 118 APPROACHES OPERATING CONCURRENTLY AND THE SENECA MEADOWS PARKWAY/GOLDENROD LANE APPROACHES OPERATING CONCURRENTLY. EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING IS PROVIDED FOR NORTHBOUND AND SOUTHBOUND MD 118. NEW AUDIBLE PUSHBUTTON ACTUATED PEDESTRIAN PHASES WILL BE PROVIDED ACROSS THE NORTH LEG OF MD 118, THE GOLDENROD LANE APPROACH, AND THE SENECA MEADOWS PARKWAY APPROACH. INTERSECTION LIGHTING EXISTS ON ALL CORNERS OF THE INTERSECTION. INTERCONNECT THAT CURRENTLY EXISTS NORTH TO MD 355 AND SOUTH TO I-270 WILL BE MAINTAINED.

APS MESSAGE FOR CROSSING MD 118 (GERMANTOWN ROAD) FROM SENECA MEADOWS PARKWAY:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GERMANTOWN AT SENECA MEADOWS-GOLDENROD, SECOND BUTTON IN MEDIAN, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING MD 118 (GERMANTOWN ROAD) FROM GOLDENROD LANE:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GERMANTOWN AT GOLDENROD-SENECA MEADOWS, SECOND BUTTON IN MEDIAN, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING MD 118 (GERMANTOWN ROAD) FROM MEDIAN:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GERMANTOWN AT GOLDENROD-SENECA MEADOWS, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING SENECA MEADOWS PARKWAY:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS SENECA MEADOWS AT GERMANTOWN, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

APS MESSAGE FOR CROSSING GOLDENROD LANE:

A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL ANNOUNCE "WAIT TO CROSS GOLDENROD AT GERMANTOWN, WAIT".

B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE.

## CONTROLLER REQUIREMENTS

THE EXISTING NEMA SIZE '6' BASE MOUNTED CABINET AND EIGHT-PHASE CONTROLLER AND ALL ASSOCIATED EQUIPMENT WILL CONTINUE TO BE USED. A 2-WIRE CENTRAL CONTROL UNIT WILL BE ADDED TO THE CABINET.

## EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA:

ITEM NO.	QUANTITY	UNIT	DESCRIPTION
900000	75	SF	SHEET ALUMINUM MAST ARM / POLE MOUNTED SIGN
			- 1 EACH M1-5(6) (30"x48") "NORTH", "118", RIGHT ARROW
			- 1 EACH M1-5(6) (30"x48") "SOUTH", "118", RIGHT ARROW
			- 1 EACH M1-5(6) (48"x72") "NORTH", "118", LEFT ARROW
			- 1 EACH M1-5(6) (48"x72") "SOUTH", "118", LEFT ARROW
			- 3 EACH R10-3(1) (9"x15") "GERMANTOWN ROAD" - POLE MOUNTED
			- 2 EACH R10-3(1) (9"x15") "GOLDENROD LANE" - POLE MOUNTED
			- 2 EACH R10-3(1) (9"x15") "SENECA MEADOWS PKWY" - POLE MOUNTED

## PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ANYESHA MOOKHERJEE  
ASSISTANT DISTRICT ENGINEER - TRAFFIC  
PHONE: (301) 513-7404

MR. TOM FOUNTAIN  
ASSISTANT DISTRICT ENGINEER - MAINTENANCE  
PHONE: (301) 513-7304

MR. ED RODENHIZER  
CHIEF - SIGNAL SHOP  
PHONE: (410) 787-7650

MR. VICTOR GRAFTON  
DISTRICT UTILITY ENGINEER  
PHONE: (301) 513-7350

MS. CORREN JOHNSON  
CHIEF - TRAFFIC OPERATIONS DIVISION  
PHONE: (410) 787-7630

MR. MIKE STOCKER  
SUPPLY OFFICE IV (SIGNAL SHOP WAREHOUSE)  
PHONE: (410) 787-7696

MR. EUGENE BAILEY  
CHIEF - SIGN OPERATIONS SECTION  
PHONE: (410) 787-7670

MR. PAUL WILSON  
PEPCO  
PHONE: (301) 548-4332

THE CONTACT PERSON FOR MCDPWT IS AS FOLLOWS:

MR. KAMUL HAMUD  
MONTGOMERY COUNTY DEPARTMENT OF TRANSPORTATION  
PHONE: (240) 777-8761

VACANT  
MONTGOMERY COUNTY SIGNAL SHOP  
PHONE: (301) 279-1291

## EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

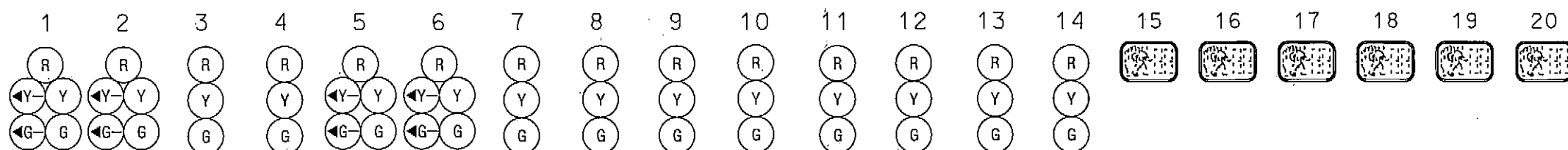
ITEM NO.	QUANTITY	UNIT	DESCRIPTION
100000	1	EA	MAINTENANCE OF TRAFFIC (PER INTERSECTION)
201032	5	CY	CLASS 2 EXCAVATION
203030	4	CY	TEST PIT EXCAVATION
585621	500	LF	12 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585625	100	LF	24 INCH WHITE PREFORMED THERMOPLASTIC PAVEMENT MARKING LINES
585700	650	LF	REMOVAL OF EXISTING PAVEMENT MARKING LINES, ANY WIDTH
600000	160	LF	TYPE A COMBINATION CURB AND GUTTER ANY HEIGHT OR DEPTH
600000	290	LF	TYPE A CURB ANY HEIGHT OR DEPTH
655105	1500	SF	5 INCH CONCRETE SIDEWALK
655120	115	SF	DETECTABLE WARNING SURFACE FOR CURB RAMPS
704345	15	SY	PLACING FURNISHED TOPSOIL 4 INCH DEPTH
708220	15	SY	TURFGRASS SOD ESTABLISHMENT
800000	1	EA	2-WIRE APS CENTRAL CONTROL UNIT
800000	7	EA	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON STATION AND SIGNS
800000	7	EA	5 FOOT OR 10 FOOT PEDESTAL POLE WITH BREAKAWAY COUPLINGS, FOUNDATION & GROUND ROD
800000	1	EA	REMOVE & DISPOSE OF EXISTING SIGNAL EQUIPMENT (PER SIGNALIZED INTERSECTION LOCATION)
800000	125	LF	UP TO 4 INCH SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
800000	75	SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
800000	1	EA	THIRD PARTY CONCRETE TESTING (PER INTERSECTION)
802501	125	LF	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
861105	1200	LF	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA:

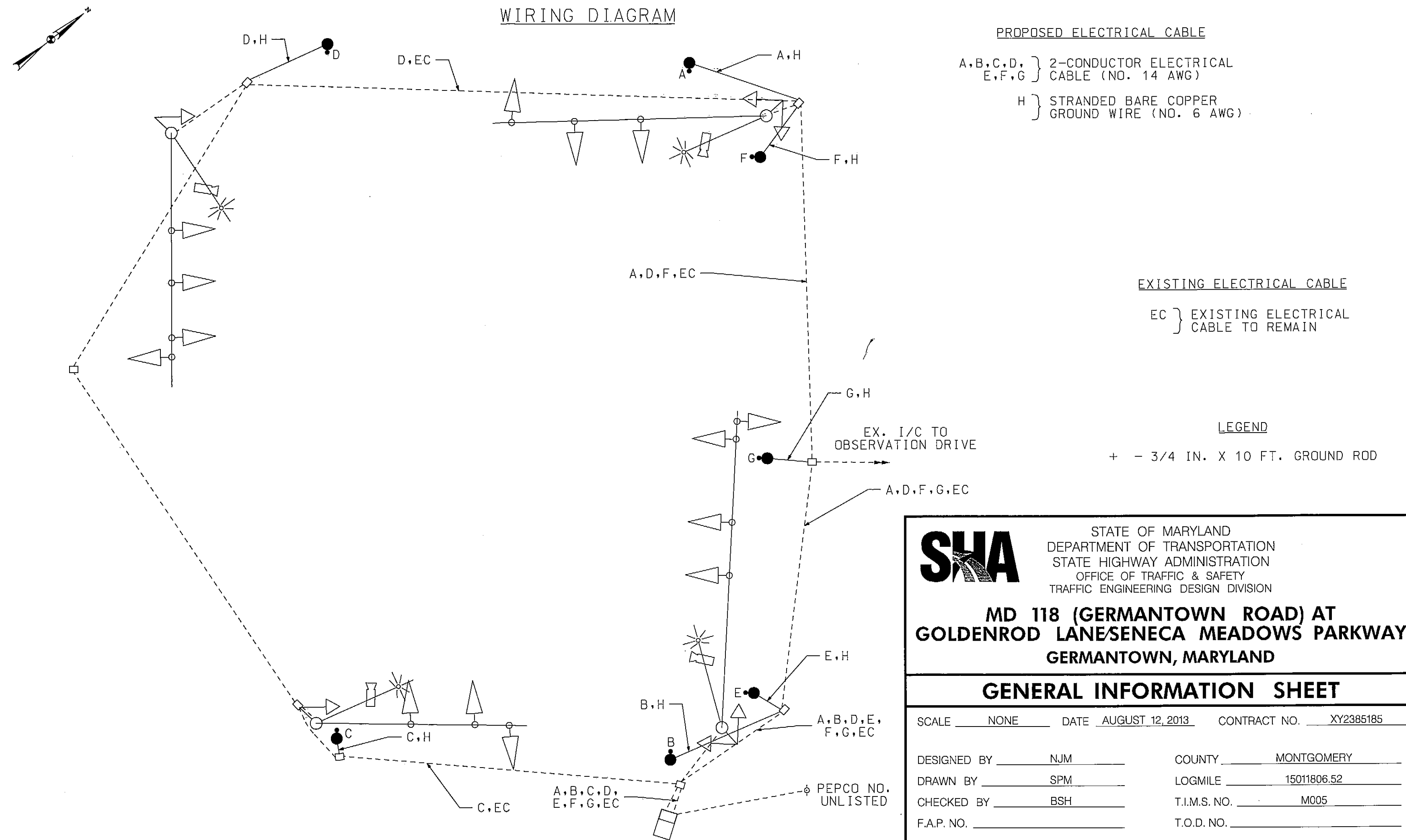
NONE.

## PHASE CHART



PHASE 1 + 5	←G/R	←G/R	R	R	←G/R	←G/R	R	R	R	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
1 + 5 CHANGE	1 + 5 MAY CHANGE TO PHASE 1 + 6, PHASE 2 + 5, OR PHASE 2 + 6																					
PHASE 1 + 6	←G/G	←G/G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	DW	W	W	DW	DW	DW
1 + 6 CHANGE	←Y/G	←Y/G	G	G	R	R	R	R	R	R	R	R	R	R	R	R	DW	W	W	DW	DW	DW
PHASE 2 + 5	R	R	R	R	←G/G	←G/G	G	G	R	R	R	R	R	R	R	R	W	DW	DW	W	DW	DW
2 + 5 CHANGE	R	R	R	R	←Y/G	←Y/G	G	G	R	R	R	R	R	R	R	R	W	DW	DW	W	DW	DW
PHASE 2 + 6	G	G	G	G	G	G	G	G	R	R	R	R	R	R	R	R	W	W	W	DW	DW	DW
PED CLEARANCE	G	G	G	G	G	G	G	G	R	R	R	R	R	R	R	R	FL/DW	FL/DW	FL/DW	DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	G	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	G	DW	DW	DW	DW	W	W
PED CLEARANCE	R	R	R	R	R	R	R	R	R	G	G	G	G	G	G	G	DW	DW	DW	DW	FL/DW	FL/DW
4 + 8 ALT CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK	DARK	DARK

## WIRING DIAGRAM



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION  
OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

**MD 118 (GERMANTOWN ROAD) AT  
GOLDENROD LANE/SENECA MEADOWS PARKWAY  
GERMANTOWN, MARYLAND**

## GENERAL INFORMATION SHEET

SCALE	NONE	DATE	AUGUST 12, 2013	CONTRACT NO.	XY2385185
DESIGNED BY	NJM	COUNTY	MONTGOMERY		
DRAWN BY	SPM	LOGMILE	15011806.52		
CHECKED BY	BSH	T.I.M.S. NO.	M005		
F.A.P. NO.		T.O.D. NO.			
T.S. NO.	4247A-GI	SG-03	OF SG-03	SHEET NO.	3 OF 3

PLOTTED: Tuesday, August 20, 2013 AT 10:12 AM  
FILE: I:\5212 - TED0123 (PB 15) - MD 118, MD 185 Signals\Design\Engineering\PlanSet\MD 118 at Goldenrod-Seneca Meadows (TS 4247)\xSG-N001\_TS4247A.dgn

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